

**OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT  
ALBUQUERQUE FIELD OFFICE**

**TOPIC-SPECIFIC EVALUATION REPORT**

**Evaluation Year 2007  
New Mexico Regulatory Program**

## I. Introduction

The purpose of oversight is to evaluate a State's or Tribe's ability to accomplish the goals and responsibilities of the Surface Mining Control and Reclamation Act. The New Mexico Oversight Team (consisting of OSM and State personnel) developed a workplan, which governed the oversight of the New Mexico Title V program for the 2007 evaluation period. The Workplan contained site-specific topics, which focused on the major goals of SMCRA: elimination of off-site impacts and achieving successful reclamation according to the requirements of the post-mining land use. Using the 2007 plan as guidance, the New Mexico Oversight Team investigated a number of variables, which influenced these two goals. The strategic plan was to use oversight to generate ideas for improving regulatory efficiency and on-the-ground- reclamation.

The regulatory sub-team agreed on topics for the Evaluation Year 2007 Workplan. The process resulted in a final State/Federal Workplan being issued on February 1, 2007.

The final oversight report summarizes the methods used, problems identified, and solutions implemented by the Team during the oversight period. The report provides a summary of the State's program performance during the oversight period based on the performance measurements described in the Workplan.

The reporting period for this evaluation began on July 1, 2006 and ended on June 30, 2007.

This report is formatted to comply with OSM Directive REG-8.

## II. List of Acronyms and Abbreviations Used

|       |  |
|-------|--|
| AER   | Annual Evaluation Report                             |
| AAO   | Albuquerque Area Office                              |
| AOC   | Approximate Original Contour                         |
| ASP   | Approved State Program                               |
| EY    | Evaluation Year                                      |
| GPRA  | Government Performance and Responsibility Act        |
| MMD   | Mining and Minerals Division                         |
| NMOT  | New Mexico Oversight Team                            |
| NOV   | Notice of Violation                                  |
| OSM   | Office of Surface Mining Reclamation and Enforcement |
| PMLU  | Post Mining Land Use                                 |
| SMCRA | Surface Mining Control and Reclamation Act           |
| ft.   | foot or feet   |
| h     | horizontal   |
| v     | vertical   |
| X-C   | cross section (al)                                   |

### III. Topic-Specific Evaluations

#### Required Program Area of Review: Off-site impacts

Review Scope: MMD identified and reported the number, degree and cause of off-site impacts to OSM. The NMOT determined if any programmatic improvements were necessary to lessen the number and degree of any impacts reported. If evaluation of data related to off-site impacts indicated program or implementation related problems, MMD was to implement changes, where possible, to minimize recurring impacts. The goal of the effort was for OSM and MMD to direct efforts to decrease the occurrence of off-site impacts.

Review Methodology: OSM and MMD evaluated State and OSM inspection reports, enforcement actions, penalty assessment data and citizen complaints.

Dates of Review: The State's actions, documents pertaining to those actions, as well as the results of joint MMD/OSM inspections were evaluated during the period from July 1, 2006 through June 30, 2007.

Findings: There were no documented off-site impacts this evaluation period. This finding is further documented in an off-site impact report which includes detailed information on data collection, verification, and analysis; conclusions on the effectiveness of the State program in preventing off-site impacts; and measures taken to address any identified program implementation deficiencies. The Off-Site Impact Oversight Report for EY-2007 is on file at AAO. Additionally, Table 4, Appendix A, of the EY-2007 AER, shows no off-site impacts for the evaluation period.

Facts Supporting the Findings: MMD conducted eighty-eight (88) partial and thirty-four (34) complete inspections during the evaluation period. All inspection reports filed for those inspections were reviewed by OSM. These inspections resulted in three (3) NOV's. There were no references in any of the reports to any off-site impacts observed. One civil penalty, in the amount of \$450.00 was assessed.

List of Specific Permits, Mine Sites, or State Actions Reviewed: All inspection reports issued by MMD pertaining to the one hundred twenty-two (122) inspections conducted during the evaluation period, documentation of enforcement actions, penalty assessment data and citizen complaints occurring during the evaluation period, as well as OSM oversight inspection reports were reviewed.

The actual or Potential Impact or Significance of Any Deficiencies Identified: No impacts were identified and no deficiencies noted.

Description of Any Corrective Action Required or Recommended: None.

Technical or Administrative Assistance Offered: None.

Required Program Area of Review: **Reclamation Success**

Review Scope: OSM and MMD measured program performance in the areas of: a. Land form/approximate original contour, b. Land capability, c. Hydrologic reclamation, and d. Contemporaneous reclamation.

Review Methodology: OSM and MMD collect data on the reclamation status of areas disturbed by each mining operation under the jurisdiction of MMD. The data was used by OSM for its use in fulfilling its GPRA reporting requirements.

Dates of Review: The State's actions, documents pertaining to those actions, as well as the results of joint MMD/OSM inspections were evaluated from July 1, 2006 through June 30, 2007.

Findings: MMD reported all categories of information agreed upon in the 2007 Annual Workplan, including the cumulative history of bond release activity.

Facts Supporting the Findings: OSM reviewed the following data elements for each active mining operation under the jurisdiction of MMD, as reported by MMD: acreage of areas disturbed during EY-2007 and cumulatively for all years, long-term mining and reclamation facilities, active mining areas, areas backfilled and graded, areas where phase I bond release has been granted (during EY-2007 and cumulatively for all years), areas re-soiled and planted (during EY-2007 and cumulatively for all years), areas where phase II bond release has been granted (during EY-2007 and cumulatively for all years), areas planted for 10 years after the last year of augmented seeding (during EY-2007 and cumulatively for all years), and areas where phase III bond release has been granted (during EY-2007 and cumulatively for all years). The data reported by MMD is attached to this report.

Additionally, MMD reported the following history of bond release activity to OSM:

| <b>Mine Name</b> | <b>Phase</b> | <b>Amt. Released</b> | <b>Acres Released</b> | <b>Date Approved</b> |
|------------------|--------------|----------------------|-----------------------|----------------------|
| Ancho            | I            | \$8,057,103.00       | 2391.00               | 7/7/2004             |
| Ancho*           | Multi        | \$3,131,860.00       | 2419.00               | 1/5/2006             |
| Black Diamond    | I            | \$134,597.00         | 23.00                 | 1-3-1994             |
| Black Diamond    | II&III       | \$89,732.00          | 245.00                | 1/8/2007             |
| Cimarron         | I            | \$661,616.00         | 54.00                 | 3/5/2004             |
| Cimarron**       | II&III       | \$441,078.00         | 54.00                 | 6/14/2005            |
| Carbon No. 2     | I            | \$2,976,687.00       | 468.40                | 10-19-1992           |
| Carbon No. 2     | II           | \$1,676,458.00       | 308.00                | 2-5-1999             |
| Carbon No. 2     | Final        | \$308,000.00         | 308.00                | 3-8-2002             |
| De-Na-Zin        | I            | \$2,815,176.00       | 170.00                | 12-19-1991           |
| De-Na-Zin        | II           | \$1,373,980.00       | 149.30                | 8-2-1999             |
| De-Na-Zin        | Final        | \$150,000.00         | 149.30                | 7/1/2003             |
| Fence Lake No. 1 | I            | \$665,829.00         | 92.60                 | 2-11-1987            |

|                              |               |                 |          |            |
|------------------------------|---------------|-----------------|----------|------------|
| Fence Lake No. 1             | II &<br>Final | \$998,743.00    | 500.00   | 1/21/2004  |
| Fence lake Mine***           | Final         | \$7,739,773.00  | 0.00     | 5/6/2004   |
| Gateway                      | I             | \$703,113.00    | 144.10   | 5-11-1992  |
| Gateway                      | II            | \$260,811.00    | 144.10   | 4-3-2000   |
| Gateway                      | Final         | \$207,931.00    | 144.10   | 1/12/2004  |
| La Plata Mine                | I             | \$0.00          | 672.00   | 7/19/2006  |
| Mentmore Section 33          | I             | \$0.00          | 203.00   | 5-16-1990  |
| Mentmore 9, 15,16<br>&21     | I             | \$0.00          | 418.90   | 10-19-1992 |
| Mentmore 3 & 4               | I & II        | \$0.00          | 867.70   | 10/10/2003 |
| Mentmore 9,15, 16,<br>21&33  | II            | \$0.00          | 1131.70  | 10/10/2003 |
| Mentmore Industrial          | Final         | \$0.00          | 455.70   | 2/9/1995   |
| Mentmore All                 | Final         | \$1,587,000.00  | 1587.40  | 6/24/2004  |
| McKinley Pre/Interim         | Liability     | \$0.00          | 1745.60  | 12-14-1994 |
| San Juan                     | I             | \$0.00          | 1832.00  | 2-14-1994  |
| San Juan NW Pinion           | Final         | \$0.00          | 236.74   | 5-24-2001  |
| San Juan Gravel Hill         | II &<br>Final | \$0.00          | 627.10   | 7/19/2006  |
| San Juan Phase I 2005        | I             | \$0.00          | 771.00   | 6/27/2005  |
| York Canyon<br>Surface****   | Multi         | \$887,530.00    | 265.00   | 12/8/2005  |
| York Canyon Surface          | I&II          | \$5,525,319.00  | 1053.00  | 9-24-2001  |
| York Canyon<br>Undergnd      | I&II          | \$2,210,019.00  | 190.00   | 9-24-2001  |
| York Canyon<br>Undergnd***** | Multit        | \$8,963,796.00  | 476.00   | 3/22/2006  |
| Total Releases               |               | \$51,566,151.00 | 20074.74 |            |

\* 6 acres Industrial PMLU  
\*\* Industrial PMLU  
\*\*\* Permit withdrawn, no disturbance  
\*\*\*\* Final on 189 acres Industrial PMLU  
\*\*\*\*\* Final on 124 acres Industrial PMLU

List of Specific Permits, Mine Sites, or State Actions Reviewed: OSM reviewed data on the reclamation status of areas disturbed by each of the following mining operations:

Black Diamond  
La Plata  
San Juan

MMD granted a phase I bond release of six hundred, seventy two (672) acres, to the La Plata Mine on July 19, 2006 (no funds were released), a phase II and III bond release, in the amount of \$89,732, involving two hundred, forty five (245) acres, to the Black Diamond Mine, on January 8, 2007, and a phase II and III bond release of six hundred, twenty seven (627) acres, to the San Juan Mine, on July 19, 2006 (no funds were released). OSM and MMD found the bond release applications to be accurate and approvable.

The Actual or Potential Impact of Significance of Any Deficiencies Identified: No deficiencies were identified.

Description of Any Corrective Action Required or Recommended: None

Technical or Administrative Assistance Offered: None

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Required Program Area of Review: **Customer Service**

Review Scope: OSM and MMD evaluated the State's responses to complaints and requests for assistance and services.

Review Methodology: During EY-2007, the team evaluated the State's timeliness, accuracy, completeness and appropriateness of the actions.

Dates of Review: July 1, 2006 through June 30, 2007.

Findings: MMD received two citizen complaints during the 2007 evaluation year.

One complaint alleged a blasting violation on a mine where MMD and OSM regulate different, but adjoining, areas. Because the complainant filed with both MMD and OSM, separate State and Federal inspections were conducted. Both MMD and OSM concluded that there was no violation of any State or Federal blasting requirements.

A second complaint alleged that a haul-road culvert pipe had restricted the flow of an irrigation ditch, causing the ditch water to overtop the embankment and flood his property. The same complaint had been registered with MMD during several, previous, evaluation periods. Each time, MMD inspected the area and concluded that there was no violation of any ASP requirements. This time, MMD replied that they had already inspected and never found a violation of any requirements. The complainant did not

appeal the MMD finding, but elected to pursue a remedy in the local court system. An MMD employee was called as a witness in that case.

Facts Supporting the Findings: MMD found no violation of any permit terms, conditions or construction specifications in the road culvert complaint.

MMD and OSM found no violation of any State or Federal Program requirements in the blasting complaint.

List of Specific Permits, Mine Sites or State Actions Reviewed: The complaint letter, the terms and conditions of the mine permit regarding compliance with specifications for the construction of a haul road culvert as well as State inspection reports and correspondence with the complainant.

OSM reviewed the correspondence between MMD and the complainant as well as the correspondence between OSM and the complainant regarding the blasting complaint.

The actual or Potential Impact or Significance of Any Deficiencies Identified: None

Description of Any Corrective Action Required or Recommended: None

Technical or Administrative Assistance Offered: None.

Selected Program Area of Review: **Reclamation Success**

Review Scope: OSM and MMD reviewed at least one “as-built” construction submittal for an existing structure at each of the following mines: La Plata, McKinley, Lee Ranch, and York Canyon Surface.

Review Methodology: MMD and OSM conducted joint, on-the-ground, inspections of selected structures to determine if each was constructed according to the “as-built” plans submitted by the operator. MMD and OSM took field measurements of the structures selected and compared them to the approved design and the “as-built” submittal.

Findings:

La Plata Mine, Pond 44

The length, width and depth measurements were substantially similar to the “as-built” drawing. However, the pond, as measured, will hold a larger than the designed volume, primarily due to its additional length, as compared to its designed length.

#### La Plata Mine, Diversion 9-38

The structure, as measured, is constructed close to the design dimensions and with an additional freeboard of approximately 2 ft.

#### McKinley Mine, Pond 9-38

The length, width and depth to water measurements were substantially similar to the “as-built” drawing.

#### McKinley Mine, Diversion 9-38

The structure as constructed has a wider, shallower shape with a cross-sectional area of 26 sq. ft. compared to the designed area of 24.7 sq. ft. Additionally, a berm along the downward slope of the diversion adds approximately 1ft. to the actual carrying capacity over the designed capacity.

#### Lee Ranch Mine, Pond 14-01-01

The structure is substantially similar to the “as-built” drawing, however very recent maintenance work on one of the spillways had raised the spillway elevation. The operator agreed to remove sufficient material to restore the spillway to the correct dimension and elevation by the end of the next day.

#### Lee Ranch Mine, Pond 14-01-02

The structure is substantially similar to the “as-built” drawing.

#### York Canyon Surface Mine, Pond W9-25.8

The structure is substantially similar to the “as-built” drawing. However, the embankment appears to have settled a few inches since construction. The structure was discharging through the combination principal/emergency spillway. Additionally, two small seeps (leaks) were visible at the downstream toe of the embankment. The water seep nearest the spillway was turbid to approximately the same degree as the discharge through the spillway. The water seep nearest the toe of the embankment was comparatively much clearer. There was no indication of embankment instability. MMD will send the staff Mining Engineer to conduct a stability analysis of this embankment.



## York Canyon Surface Mine, Pond W9-25.12

The structure is substantially similar to the “as-built” drawing. However, the embankment appears to have settled a few inches since construction.

Facts Supporting the Findings:

The field measurements recorded for each of the structures inspected are as follows:

| <u>Feature</u> | <u>Design</u> | <u>“As-built” Submittal</u> | <u>Field Measurement</u> |
|----------------|---------------|-----------------------------|--------------------------|
|----------------|---------------|-----------------------------|--------------------------|

## La Plata Mine, Pond 44

|                            |         |         |         |
|----------------------------|---------|---------|---------|
| South Width                | 127 ft. | 135 ft. | 126 ft. |
| West Length                | 120 ft. | 200 ft. | 189 ft. |
| North Width                | 50 ft.  | 65 ft.  | 62 ft.  |
| East Length                | 120 ft. | 260 ft. | 260 ft. |
| South Embankment<br>Height | 10 ft.  | 9 ft.   | 7.6 ft. |

Note: The bottom was overlaid with mud of an uncertain depth, and impossible to traverse. Therefore, the measurements were taken slightly above the actual bottom, very close to the 5,965 ft. elevation. This pond was designed to contain the precipitation from a 100-year/six-hour event and, therefore, does not have or require a spillway.

## La Plata Mine, Diversion 9-38

|                   |          |    |          |
|-------------------|----------|----|----------|
| Top Width         | 24 ft.   | NA | 19.5 ft. |
| Bottom Width      | 13 ft.   | NA | 12.5 ft. |
| Depth + Freeboard | 0.55 ft. | NA | 2.45 ft. |

Note: The actual width of this structure is narrower than the design, however, the actual capacity is far greater than required because it is approximately five times deeper than required.

## McKinley Mine, Pond 9-38

|                   |                 |         |         |
|-------------------|-----------------|---------|---------|
| Southern Length   | 400 ft.         | 375 ft. | 390 ft. |
| Eastern Width     | 195 ft.         | 168 ft. | 172 ft. |
| Spillway Width    | 40 ft. (bottom) | 40 ft.  | 38 ft.  |
| Spillway Depth    | 2.0 ft.         | 2.4 ft. | 2.1 ft. |
| Riser Pipe Height | 5.0 ft.         | 5.7 ft. | 5.3 ft. |

## McKinley Mine, Diversion 9-38

|           |              |    |            |
|-----------|--------------|----|------------|
| Top Width | 17.2 ft.     | NA | 25 ft.     |
| Depth     | 2.87 ft.     | NA | 2.9 ft.    |
| X-C* Area | 24.7 sq. ft. | NA | 26 sq. ft. |

Note: Fourteen (14) X-Y coordinates were measured to obtain the cross-sectional\* area of the diversion. These measurements were taken approximately 50ft. from the pond inlet.

## Lee Ranch Mine, Pond 14-01-01

|                      |         |          |          |
|----------------------|---------|----------|----------|
| Pond Length          | 480 ft. | 480 ft.* | 480 ft.* |
| Eastern Width        | 198 ft. | 183 ft.  | 183 ft.  |
| Spillway Width       | 40 ft.  | 36 ft.   | 40.5 ft. |
| Spillway Depth       | 1.5 ft. | 1.3 ft.  | 1.0 ft.  |
| Water Level to Crest | NA      |          | 3.5 ft.  |

\*Note: This is the projected distance from the inlet crest to the spillway crest, as determined by measuring along the southern edge of the structure.

## Lee Ranch Mine, Pond 14-01-02

|                      |         |         |          |
|----------------------|---------|---------|----------|
| North Crest Length   | 480 ft. | 462 ft. | 462 ft.  |
| West Crest Length    | 198 ft. | 205 ft. | 205 ft.  |
| Spillway Width       | 40 ft.  | 38 ft.  | 42 ft.   |
| Spillway Depth       | 1.5 ft. | 0.5 ft. | 0.65 ft. |
| Water Level to Crest | NA      |         | 5.2 ft.  |

## York Canyon Surface Mine, Pond W9-25.08

|  |          |          |
|--|----------|----------|
| Embankment Length to Spillway          | 250 ft.  | 245 ft.  |
| Pond Width Perpendicular to Embankment | 310 ft.  | 204 ft.* |
| Spillway Bottom Width                  | 27 ft.   | 27 ft.   |
| Spillway Top Width                     | 50 ft.   | 60 ft.   |
| Spillway Depth                         | 4.6 ft.  | 4.1 ft.  |
| Spillway Side Slopes                   | 2.5 h/1v | 4 h/1v   |

\*Note: This pond could not be traversed because it was holding a substantial amount of water. The distance was measured by attempting to parallel the pond along an adjacent road. Without a compass to take bearings along the shoreline, the perpendicular end points could not be determined. Therefore, this measurement is unreliable.

## York Canyon Surface Mine, Pond W9-25.12

|                                      |          |          |
|--------------------------------------|----------|----------|
| Embankment Length to Riser Pipe      | 412 ft.  | 425 ft.  |
| Pond Width Perpendicular to Spillway | 125 ft.  | 118 ft.  |
| Spillway Bottom Width                | 32 ft.   | 32.5 ft. |
| Spillway Top Width                   | 43.3 ft. | 51 ft.   |
| Spillway Depth                       | 3 ft.    | 2.7 ft.  |
| Spillway Side Slopes                 | 2 h/1v   | 3.4 h/1v |

Dates of Review: OSM and MMD inspections and findings were evaluated from July 1, 2006 through June 30, 2007.

List of Specific Permits, Mine Sites, or State Actions Reviewed: The MMD and OSM inspection reports which contain the field measurements taken of the structures selected for review, the initial designs submitted with the permit application for the structures selected for review and the “as-build” drawings submitted post-construction for the structures selected for review.

The Actual or Potential Impact or Significance of Any Deficiencies Identified: No substantial deficiencies were noted.

Description of Any Corrective Action Required or Recommended: None

Technical or Administrative Assistance Offered: None.